



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/647,109	12/27/2000	Ralph Gronau	AP9360	3797

10291 7590 09/26/2003

RADER, FISHMAN & GRAUER PLLC  
39533 WOODWARD AVENUE  
SUITE 140  
BLOOMFIELD HILLS, MI 48304-0610

EXAMINER
----------

CHERRY, STEPHEN J

ART UNIT	PAPER NUMBER
----------	--------------

2863

DATE MAILED: 09/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/647,109

Applicant(s)

GRONAU ET AL.

Examiner

Stephen J. Cherry

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 36-66 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 44,45,48-54 and 62-66 is/are allowed.
- 6) ☒ Claim(s) 36-39,41-43,46,47 and 55-61 is/are rejected.
- 7) ☒ Claim(s) 40 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 10 March 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

Claim 40 objected to because of the following informalities: The claim, as amended on 10-8-02, contains the phrase, "[or deemed driven]". The examiner is interpreting the brackets an indication that the phrase was intended to be deleted. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 36-39, 41-43, 46-47 and 55-60 rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 5,682,333 to Baumann.

The claims recite, as disclosed by Baumann:

36. A method for determining correction values for wheel speeds of a vehicle, comprising, the step of:

determining the speeds of the vehicle wheels during travel ('333, col. 4, line 45),  
evaluating the speeds of the wheels in groups, for the wheels of the non-driven axle ('333, col. 6, line 8), and for the wheels of the left-hand vehicle side and the right-hand vehicle ('333, col. 5, line 36) side to obtain initial correction values for the non-driven axle, for the left-hand vehicle side, and for the right-hand vehicle side based on the speeds of the wheels in the groups ('333, col. 5, line 23 to col. 6, line 53), and determining final correction values for the individual wheels of the vehicle in accordance with the initial non-driven axle, left-hand vehicle side, and right-hand vehicle side correction values obtained in the evaluation step ('333, col. 6, line 40).

37. A method according to claim 36, wherein the evaluation in groups is effected for wheel speeds in relation to the wheel speed values determined during a state of travel in which conditions exist that are favorable for the evaluation of the wheel speed values of the group under consideration ('333, col. 5, line 24).

38. A method according to claim 37, wherein the determined speeds of the vehicle are determined during a straight travel of the vehicle ('333, col. 3, line 60),

39. A method according to claim 37, wherein the speeds of the vehicle wheels are determined during a disengaged state ('333, col. 5, line 28).

41. A method of claim 38, wherein the wheel speeds used for the evaluation grouped by vehicle sides are determined at different times than the wheel speeds used for the evaluation grouped by vehicle axles ('333, 8 and 10).

42. A method according to claim 36, wherein the evaluation in groups of wheel speeds covers ratio formation or difference formation or pair-wise normalization of the speeds of the wheels of this group (333, col. 5, line 42).

43. A method according to claim 36, wherein a correction value is selected for one wheel, wherein in accordance with the results of evaluation, correction values are determined for the rest of the vehicle wheels ('333, col. 4, line 30),

46. A method according to claim 36, wherein the determination of the wheel speed of the vehicle wheel includes sensing the rotating speed of the wheel by means of a wheel sensor ('333, col. 4, line 6) and, subsequent filtering of the sensed values ('333, col. 4, line 46).

47. A method according to claim 38, wherein the straight travel of the vehicle is detected by evaluating the time sequence of the difference of the wheel speeds preferably on the non-actuated axle of the vehicle ('333, col. 3, line 60).

55. A device for determining values of correction for the wheel speeds of a vehicle, composing: wheel sensors for determining the speeds of wheels

of the vehicle during travel ('333, col. 4, line 5), determining means for evaluating the speeds of the vehicle wheels in groups for at least one vehicle axle ('333, col. 6, line 8), for a left-hand vehicle side and for a right-hand vehicle side to obtain initial correction values ('333, col. 5, line 36), and means for determining the final values of correction for the individual wheels of the vehicle in accordance with the initial vehicle axle, left-hand vehicle side and right-hand vehicle side correction values obtained by the determining means for evaluating the speeds of the vehicle wheels ('333, col. 6, line 40).

56. A device according to claim 55, wherein the determining means further includes a means for evaluating, in groups, the speeds of the wheel of the non-driven axle ('333, col. 6, line 8), and respectively one device for evaluating, in groups, the speeds of the wheels on the left-hand vehicle side and the right-hand vehicle side ('333, col. 5, line 36).

57. A device according to claim 55, further including state detection means for determining a driving state in which conditions for the wheel speed values of the group under consideration prevail that are favorable for evaluating wheel speeds, in groups ('333, col. 5, line 24).

58. A device according to claim 57, wherein the state detection means further includes detecting means for detecting straight travel of the vehicle ('333, col. 3, line 60).

59. A device according to claim 57, wherein state detecting means further includes detecting means for detecting a disengaged state in the vehicle ('333, col. 5, line 28).

60. A device according to claim 56, wherein said device for evaluating, in groups, wheel speeds includes a means for forming a ratio or a difference or for a normalization, in pairs, of the speeds of the wheels of the said group ('333, col. 5, line 42).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 61 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,682,333 to Baumann in view of U.S. Patent 5,058,019 to Litkouhi. The claim recites, as disclosed by Baumann:

A device for determining values of correction for the wheel speeds of a vehicle, composing: wheel sensors for determining the speeds of wheels of the vehicle during travel ('333, col. 4, line 5), determining means for evaluating the speeds of the vehicle wheels in groups for at least one vehicle axle ('333, col. 6, line 8), for a left-hand vehicle side and for a right-hand vehicle side to obtain initial correction values ('333, col. 5, line 36),

and means for determining the final values of correction for the individual wheels of the vehicle in accordance with the initial vehicle axle, left-hand vehicle side and right-hand vehicle side correction values obtained by the determining means for evaluating the speeds of the vehicle wheels ('333, col. 6, line 40), further including state detection means for determining a driving state in which conditions for the wheel speed values of the group under consideration prevail that are favorable for evaluating wheel speeds, in groups ('333, col. 5, line 24), wherein the state detection means further includes detecting means for detecting straight travel of the vehicle ('333, col. 3, line 60).

The claim further recites:

wherein the detecting means for detecting the straight travel of the vehicle further includes at least one low pass filter for evaluating the value of the difference between the wheel speeds of one axle.

Although Baumann discloses filtering ('333, col. 4, line 46) of the input signal to find the difference of speeds of the wheels, the filtering is not explicitly disclosed as "low pass" filtering. This type of filtering is disclosed by Litouhi ('019, col. 4, line 42).

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use low pass filtering as the filtering disclosed by Baumann to reduce noise effects caused by measurement errors ('019, col. 4, line 43).

***Allowable Subject Matter***



Claims 44-45, 48-54, and 62-66 are allowed.

### ***Response to Arguments***

Applicant's arguments regarding claims 36-39, 41-43, 46-47, and 55-61, filed 7-10-03 have been fully considered but they are not persuasive.

Applicant states that Baumann does not generate initial correction values from wheels on both sides of the vehicle as well as across axle and does not determine a final result from the values. However, at '333, col. 5, line 24 Baumann describes forming correction values for wheels on the same side, at col. 6, line 8, correction for wheels on the same axle is disclosed, and at col. 6, line 40, correction values for all the wheels are calculated from the values determined.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Cherry whose telephone number is (703) 305-0425. The examiner can normally be reached on M-F 8:00-4:30.

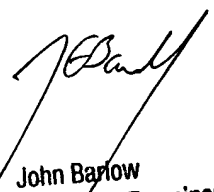
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (703) 308-3126. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0719.

Application/Control Number: 09/647,109  
Art Unit: 2863

Page 9

SJC



John Barlow  
Supervisory Patent Examiner  
Technology Center 2800